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HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER	
PHAM, THIERRY L	

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/661,898	WARD ET AL.	
	Examiner	Art Unit	
	Thierry L. Pham	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,8,9,13 and 16-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *9, 13, 17-18* is/are allowed.

6)☒ Claim(s) *1-5,8,16 and 19-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: RCE filed on 9/29/06.
- Claims 1, 2-5, 8-9, 13, 16-24 are pending; claims 2, 6-7, 10-12, and 14-15 have been canceled; claims 19-24 are newly added.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/29/06 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Minagawa (US 6614550).

Regarding claim 19, Minagawa discloses a method for executing a print request to print a document, the method comprising:

- analyzing a first characteristic (type of document to be printed, fig. 9-10, 14-15, i.e., quick text or image or etc.) of the print request related to the content of the document (relating to document data, figs. 14-18) and a second characteristic (type of print media to be used for each mode, figs. 9-10, 14-18) of the print request unrelated to the content of the document;

• identifying a print setting (example of print settings as shown in figs. 14-18) based on the analysis of the first and second characteristics; and
• printing (print using registered print settings as shown in figs. 14-18, see example for selecting appropriate print setting mode on column 9) the document using the identified print setting.

Regarding claim 20, Minagawa further discloses the method of claim 19, wherein:
• the first characteristic comprises one or more of a number of pages in the document, an amount of text data in the document, an amount of image data in the document, a type of text data (i.e. text/table mode suitable for general text or table, fig. 13-15, see example 2 & 3 on col. 9, lines 25-65) in the document, and a type of image data in the document; and
• the second characteristic comprises one or more of an input/output protocol associated with the print request, a type of host device transmitting the print request, an application used to generate the print request, a status of a queue for print requests, a time of day of the print request, and a type of media (output media, figs. 8-10, 14-18) on which the document is to be printed.

Regarding claim 21, Minagawa further discloses the method of claim 19, wherein:
• identifying a print setting based at least on part on the analysis of the first and second characteristics comprises identifying optimum print settings (selecting optimum print settings based upon document type and etc., figs. 9-15, col. 9, lines 15-65) based at least in part of the analysis of the first and second characteristics, and
• printing (print using registered print settings as shown in figs. 14-18, see example for selecting appropriate print setting mode on column 9) the document using the identified print setting comprises printing the document using the identified print settings.

Regarding claims 22-24: Claims 22-24 recite limitations that are similar and in the same scope of invention as to those in claims 19-21 except computer readable memory for storing computer programs. All computers/printers have some type of computer

readable medium (i.e. RAM 2, fig. 2) for storing computer programs, hence claims 22-24 would be rejected using the same rationale as in claims 19-21.

Claims 19-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Shima (US 6149323).

Regarding claim 19, Shima discloses a method for executing a print request to print a document, the method comprising:

- analyzing a first characteristic (document type, fig. 2) of the print request related to the content of the document (col. 2, lines 35-45) and a second characteristic (type of print media to be used for each mode, col. 5, lines 10-20) of the print request unrelated to the content of the document;
- identifying a print setting (identifying a print setting for document, fig. 3, col. 5, lines 1-40) based on the analysis of the first and second characteristics; and
- printing (print using stored print settings as shown in figs. 2-4, cols. 5-6) the document using the identified print setting.

Regarding claim 20, Shima further discloses the method of claim 19, wherein:

- the first characteristic comprises one or more of a number of pages in the document, an amount of text data in the document, an amount of image data in the document, a type of text data in the document, and a type of image data (i.e. photographic printing, col. 6, lines 10-15) in the document; and
- the second characteristic comprises one or more of an input/output protocol associated with the print request, a type of host device transmitting the print request, an application used to generate the print request, a status of a queue for print requests, a time of day of the print request, and a type of media (output print media, col. 5, lines 10-20) on which the document is to be printed.

Regarding claim 21, Shima further discloses the method of claim 19, wherein:

- identifying a print setting based at least on part on the analysis of the first and second characteristics comprises identifying optimum print settings (selecting optimum print

settings based upon document type and etc., figs. 3-5, col. 6, lines 10-15) based at least in part of the analysis of the first and second characteristics, and

- printing (print using stored print settings as shown in figs. 3-5, see example for selecting appropriate print setting mode on column 6, lines 10-15) the document using the identified print setting comprises printing the document using the identified print settings.

Regarding claims 22-24: Claims 22-24 recite limitations that are similar and in the same scope of invention as to those in claims 19-21 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. storage device 66, fig. 5) for storing computer programs, hence claims 22-24 would be rejected using the same rationale as in claims 19-21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 8, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima (US 6149323), and in view of Fujomoto et al (US 6204867).

Regarding claim 1, Shima discloses a method of selecting of selecting one of a plurality of print settings (selecting from a plurality of stored print setting values for printing current document, fig. 3, col. 2, lines 15-67) for printing a current document comprising:

- gathering historical document data (gathering historical data of stored document such as titles, col. 3, lines 20-25) relating to prior print setting selections (stored print setting values A1-A4 or B1-B4, fig. 2, col. 3, lines 1-40 and col. 4, lines 6-45);
- correlating each prior print setting selection (print setting values correlated with stored document, col. 3, lines 17-40) including user's prior print setting preference (each

document is linked with a setting value files as shown in fig. 3 & 6) with one or more characteristics of the current document data (col. 3, lines 20-25);

• comparing (comparing correlated print setting values to the current document attributes to determine whether previous stored setting values can be used, if not, creates a new setting values, fig. 3, col. 4, lines 45 to col. 5, lines 1-60 and col. 7, lines 3-32) the correlated print setting selections to one or more characteristics of the current document to select a print setting from among the plurality of print settings.

However, Shima fails to teach and/or suggest a method of automatically selecting a print setting from among the prior print settings, the selected print setting being best suited to the user's prior print setting preferences.

Fujimoto, in the same field of endeavor for printing, a method of automatically selecting (automatically selecting a print mode based upon past usage modes, col. 18, lines 44 to col. 19, lines 12) a print setting from among the prior print settings, the selected print setting being best suited (the selected print mode is best for image data type, for example, color print mode is best for color image data, col. 18, lines 44 to col. 19, lines 12) to the user's prior print setting preferences.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system method of Shima to include a method of automatically selecting a print mode based upon image data type and its past usage frequencies (***i.e. in other words, if a color print mode has been consistently used for color image data, then it would be obvious to use the same color print mode for future print job that contains color image data***) as taught by Fujimoto because of a following reason: (•) to ensure high print output quality by utilizing the best compatible print mode; (•) automatically selecting best print mode without human invention reduces operating time and costs; (•) wasted power consumption can be prevented (col. 17, lines 20-28 of Fujimoto).

Therefore, it would have been obvious to combine Shima with Fujimoto to obtain the invention as specified in claim 1.

Regarding claim 8, Shima discloses a method of selecting one of a plurality of print settings for printing a current document (selecting from a plurality of stored print setting values for printing current document, fig. 3, col. 2, lines 15-67) comprising the steps of:

- gather prior document data (gathering historical data of stored document such as titles, col. 3, lines 20-25) relating to prior setting selections including a user's preferred print setting associated (stored print setting values A1-A4 or B1-B4, fig. 2, col. 3, lines 1-40 and col. 4, lines 6-45) with the prior document data (each document is linked with a setting value files as shown in fig. 3 & 6);
- comparing (comparing correlated print setting values to the current document attributes to determine whether previous stored setting values can be used, if not, creates a new setting values, fig. 3, col. 4, lines 45 to col. 5, lines 1-60 and col. 7, lines 3-32) the prior print settings selections and associated prior document data to at least one of the current document;
- selecting (step S6, fig. 3) a print setting for the document based on the comparison.

However, Shima fails to teach and/or suggest a method of automatically selecting a print setting from among the prior print settings, the selected print setting being best suited to the user's prior print setting preferences.

Fujimoto, in the same field of endeavor for printing, a method of automatically selecting (automatically selecting a print mode based upon past usage modes, col. 18, lines 44 to col. 19, lines 12) a print setting from among the prior print settings, the selected print setting being best suited (the selected print mode is best for image data type, for example, color print mode is best for color image data, col. 18, lines 44 to col. 19, lines 12) to the user's prior print setting preferences.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system method of Shima to include a method of automatically selecting a print mode based upon image data type and its past usage frequencies (***i.e. in other words, if a color print mode has been consistently used for color image data, then it would be obvious to use the same color print mode for future print job that contains color image data***) as taught by Fujimoto because of a following

reason: (•) to ensure high print output quality by utilizing the best compatible print mode; (•) automatically selecting best print mode without human invention reduces operating time and costs; (•) wasted power consumption can be prevented (col. 17, lines 20-28 of Fujimoto).

Therefore, it would have been obvious to combine Shima with Fujimoto to obtain the invention as specified in claim 8.

Regarding claim 16: Claim 16 recites limitations that are similar and in the same scope of invention as to those in claim 1 except computer readable memory for storing computer programs. All computers/printers have some type of computer readable medium (i.e. hard disks 33b, fig. 3 of Fujimoto) for storing computer programs, hence claim 16 would be rejected using the same rationale as in claim 1.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima and Fujimoto, and further in view of Minagawa (US 6614550).

Regarding claim 3, the combinations of Shima and Fujimoto fail to teach and/or suggest automatically determining an amount of text data in the current document; and automatically adjusting a print setting associated with the current document based on the amount of text data and the user's prior print setting preference.

Minagawa, in the same field of endeavor for printing, teaches automatically determining an amount of text data (col. 9, lines 35-42) in the current document; and automatically adjusting (fig. 8, abstract, col. 2, lines 4-10 and col. 6, lines 18-28) a print setting associated with the current document based on the amount of text data and the user's prior print setting preference.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system method of Shima and Fujimoto to include instructions automatically determining an amount of text data in the current document; and automatically adjusting a print setting associated with the current document based on the amount of text data and the user's prior print setting preference as taught by Minagawa because of a following reason: (•) to save print medias (col. 9, lines 55-58).

Therefore, it would have been obvious to combine Shima, Fujimoto, and Minagawa to obtain the invention as specified in claim 3

Regarding claim 4, Minagawa further teaches automatically determining an amount of image data (col. 9, lines 35-42) in the current document; and automatically adjusting a print setting (fig. 8, abstract, col. 2, lines 4-10 and col. 6, lines 18-28) associated with the current document based on the amount of image data and the user's prior print setting preferences.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minagawa (US 6614550), and in view of Fujomoto et al (US 6204867).

Regarding claim 5, Minagawa disclose a method for detecting an amount of text data (amount of text, col. 9, lines 35-42) in the document and an amount of image data (amount of image data, col. 9, lines 35-42) in the document with a user's prior print setting preference (registered print settings mode with specific comments for each mode as shown in figs. 9-15); and automatically selecting (automatically selecting, col. 9, lines 35-42) a print setting for the document from the plurality of print settings.

However, Minagawa fails to teach and/or suggest comparing current document data with previous printed document data (i.e. amount of text, color, black or white, and etc) and to select appropriate print setting mode based upon comparison results.

Fujimoto, in the same field of endeavor for printing, a method of automatically selecting (automatically selecting a print mode based upon past usage modes, col. 18, lines 44 to col. 19, lines 12) a print setting from among the prior print settings, the selected print setting being best suited (the selected print mode is best for image data type, for example, color print mode is best for color image data, col. 18, lines 44 to col. 19, lines 12) to the user's prior print setting preferences.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify print system method of Minagawa (***notes: Minagawa specifically teaches that each print mode is provided with detail comments, fig. 14, therefore, it would be obvious to provide detail comments for a print mode that is***

specifically for a document contains certain amount of text and certain amount of image) to include a method of automatically selecting a print mode based upon image data type and its past usage frequencies (***i.e. in other words, if a print mode has been consistently used for document with certain amount of text and/or image data, then it would be obvious to use the same print mode for future print job that contains similar amount of image data and/or text data)*** as taught by Fujimoto because of a following reason: (•) to ensure high print output quality by utilizing the best compatible print mode; (•) automatically selecting best print mode without human invention reduces operating time and costs; (•) wasted power consumption can be prevented (col. 17, lines 20-28 of Fujimoto).

Therefore, it would have been obvious to combine Minagawa with Fujimoto to obtain the invention as specified in claim 5.

Response to Arguments

Applicant's arguments filed 9/29/06 have been fully considered but they are not persuasive.

• Regarding claims 1, 8, and 16, the applicants argued the cited prior art of record (US 6149323 to Shima) fails to teach and/or suggest correlating each prior print setting selection, including a user's prior print setting preferences, with one or more characteristics of the current document data and comparing the correlated print setting selections to one or more characteristics of the current document.

In response, the examiner disagrees with applicants' arguments/assertions. Shima teaches an example of previously used print setting (col. 2, lines 56-65) stored in a storage media/directory which can be used later for printing another new document without being limited by the functions of the application program used for preparing the document. Each previously used print setting is set to print specific type of document (i.e. text or photograph, and etc, col. 2, lines 30-44 and col. 6, lines 10-15, fig. 4) so it can be later used for printing the same type of document without having to regenerate a new print

setting. An example of using B1 print setting value for photographic printing is taught on col. 6, lines 10-15. It is also well known in the art that users beforehand knew the type of document (i.e. whether the document is text, graphic, photographic, or etc.) to be printed. By knowing these facts, it is obvious to select a print setting that is most suitable for document to be printed. The purpose of Shima's reference is to use the same print mode to print the next document having similar characteristics as previously printed document, by doing so, it eliminates the needs of having to regenerate a whole new print settings, therefore, reducing times and costs.

Allowable Subject Matter

Claims 9, 13, 17-18 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art of record fails to teach and/or suggest automatically analyzing a plurality of characteristics relating to document data in the current document, the plurality of characteristics including a host device type, a type of text data, a type of image data, an infrared communication, and a radio frequency communication, automatically comparing plurality of analyzed characteristics with user's prior print settings preference associated with prior documents, and to automatically select an appropriate print setting based upon the analyzed characteristics ***and in combinations of other features*** as cited in independent claims 9 & 17. The examiner found neither prior art cited in its entirety, nor based on the prior art, found any motivation to combine any of prior arts that teaches the above limitations and in combinations of other features cited in claims 9 & 17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thierry L. Pham whose telephone number is (571) 272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571)272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thierry L. Pham

GABRIEL I. GARCIA
PRIMARY EXAMINER